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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/840,196	04/23/2001	John P. O'Loughlin	TRW(VSSIM)4719-1	2264

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EXAMINER

LUM, LEE S

ART UNIT PAPER NUMBER

3611

DATE MAILED: 07/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/840,196

Applicant(s)

O'LOUGHLIN ET AL.

Examiner

Ms. Lee S. Lum

Art Unit

3611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-41, 46 and 48-61 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 57, 59 and 60 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 17, 18, 20-32, 35-41, 46, 48 and 52-56 is/are rejected.
- 7) ☒ Claim(s) 3-16, 33, 34 and 49-51 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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**DETAILED ACTION**

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1. An Amendment was filed 5/12/03 in which Claims 57-61 were also added.

The Claims presented for examination are 1-41, 46 and 48-61.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2A. **Claims 1, 2, 17, 18, 20-32, 35-41, 46, 48 and 52-56** are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer 6325409 in view of Shirk et al 6227562, and Faigle 6176518.

Re **Claims 1, 2, 20-22, 24-32, 35-41 and 52-56**, Fischer discloses apparatus (fig 1) for protecting an vehicle occupant comprising

side airbag 14 having forward and rearward portions extending from the A-pillar, to the B-pillar, of the vehicle,

fluid source 20,

fill tube 22 extending into forward and rearward portions,

with spaced apertures 26-32 (even numbers) to inflate the airbag to a first pressure (inherent), and,

maintain this inflation above a second pressure (col 4, lines 27-34, via "makeup outlet passage" for second inflation), less than the first pressure, for a time period of at least 5-7 secs (col 4, lines 32-24),

the fluid directed into both portions evenly at generally the same temperature (i.e., just above ambient), and pressure during inflation (col 3, lines 43-48, "to ensure uniform inflation of the gasbag during its deployment),

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the fluid having a temperature about equal to an ambient temperature for at least 95%-98% of the time period (inherent),  
the fill tube constructed such that the inherent volume of air present before inflation receives adiabatic heating (inherent), and,  
the fluid is expelled through the apertures at a supersonic velocity (col 1, lines 30-32)..

Fischer does not disclose the fluid source as not including a pyrotechnic material, while Shirk shows this configuration in col 2, lines 44-45. While Fischer's configuration is functionally equivalent, it would have been obvious to one with ordinary skill at the time the invention was made to include this alternate configuration, as shown in Shirk, for those applications which are incompatible with a pyrotechnic material in its assembly, e.g., in a system in which a flame/fire source would be detrimental.

Fischer does not disclose the fluid as essentially helium, compressed to about 6250 psig, while Faigle shows this arrangement in col 2, lines 50-52. Although the type of fluid is application-specific, and does not affect functionality of the system, it would have been obvious to one with ordinary skill at the time the invention was made to include this particular type, as shown in Faigle, to suggest the scope of the invention and applicability.

Re **Claim 23**, Fischer does not disclose a sensor, while Shirk shows this element 100 as the actuation element for the system. It would have been obvious to one with ordinary skill at the time the invention was made to include an actuation sensor, as shown in Shirk, to accurately initiate the protection system due to an crash event, as is extremely well-known in the art.

Re **Claims 46 and 48**, Fischer, in view of Shirk and Faigle, discloses a method of protecting a vehicle occupant, the steps derived from the structure and means previously discussed.

2B. **Claims 19, 58 and 61** are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer in view of Shirk and Faigle, and in further view of Bowers et al 6299199.

The previous references do not disclose noninflated portions in the airbag, while Bowers shows these features 64. It would have been obvious to one with ordinary skill at the time the invention was made to include these elements, as shown in Bowers, to reduce the total weight and material of the airbag, thus reduce storing and inflation requirements.

3. ALLOWABLE SUBJECT MATTER

- a. **Claims 3-16, 33, 34 and 49-51** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
- b. **Claims 57, 59 and 60 are allowable.**

Prior art does not disclose an apparatus for protecting a vehicle occupant comprising, *inter alia*, gas apertures arranged in groups, each group including a plurality of apertures, the groups being spaced apart along the length of a fill tube.

4. RESPONSE TO REMARKS: Moot in light of amendments, and new art rejections.

5. Communication with the Examiner and USPTO

Any inquiry concerning this communication should be directed to Ms. Lum at (703) 305-0232, 9-6, M-F. Our fax numbers are (703) 872-9326, 872-9327 for after-final communications, and 308-2571 for communications having given prior notice to the examiner. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to customer assistance at (703) 306-5771.

Ms. Lee S. Lum  
Examiner  
7/7/03

